

Plymouth, Massachusetts

FREEZE PILGRIM RELICENSING FORUM

March 29, 2012

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Background: Why Nuclear Power ?

- National Policy-replace coal –eventually
- Coal:
 - Acid Rain
 - 34,000 deaths, \$280billion health costs
Every Year
(EPA Cross-State Air Pollution Rule
December, 2011)

Regulation of Nuclear Power

- Nuclear Regulatory Commission – NRC
- Continuous Inspection-and reporting to the public
 - On site Inspectors, Outside Inspection teams
 - Yearly “Report Card” meeting – March 29, 2012
- Those with licenses must obey NRC rules, orders, and schedules.

Plymouth's Ballot Question

- NRC just issued ORDERS on Fukushima-Daiichi accident
- Ballot Question alone can not be recognized by the NRC
- VOTE NO

Fukushima –Daiichi Accident

- A “once-in-a-thousand-year-event”
- 15 Reactors on 5 sites affected by earthquake and tsunami.
- 3 reactors lost cooling - meltdowns
- Tsunami disabled only vulnerable plants.
- Evacuations began on the first day.

Fukushima-Daiichi accident - continued

- Units 1-3 in cold condition. Fuel pools cooled.
All others OK
- Evacuated Area - “decontaminate” for return.
- Clean up: to yearly worker exposure amount-
20 msv =1 CT scan. Highest natural 15x more
- NO immediately medically significant exposures.

Pilgrim Status

- Original Design

Earthquake -1755 Cape Ann 6.0 Richter

Tidal Wave/tsunami – 19.5 ft with wave on top. Highest to date 14.5 ft

Storm winds: 300mph, 250 mph telephone pole

Containment for: largest pipe break with loss of offsite power

- Upgrades –to date

Containment for: Station Blackout, Core damage - Inerted

Mark I Containment Backfits-Needed based on Mark III testing

Post Three Mile Island accident

Anticipated Transient Without Scram (ATWS)

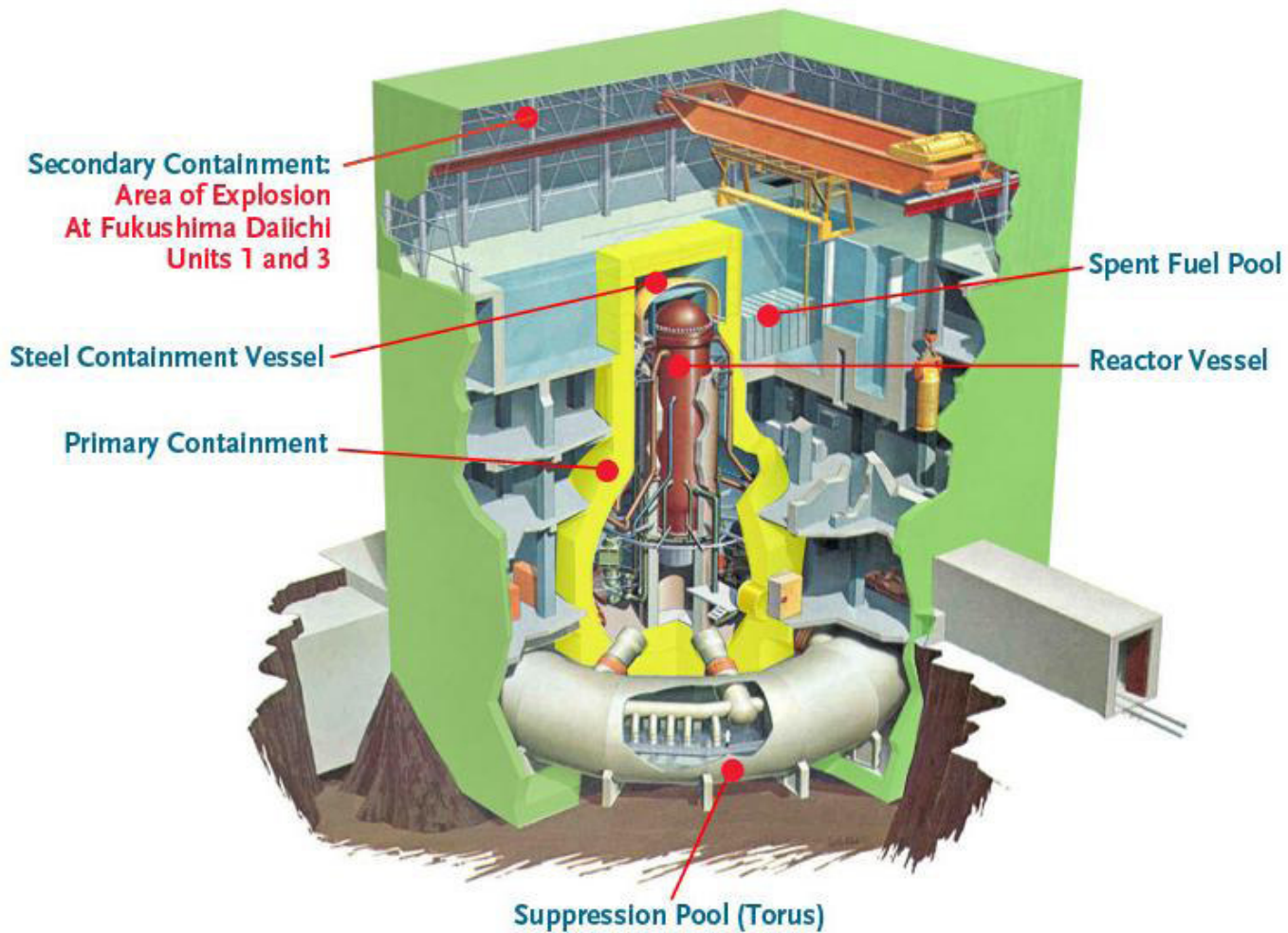
Security –Before and After September 11, 2001

Mark I Containment History

- Designed in the 1960's -based on tests
- More analysis raises questions – Hanauer memo
- GE Testing Mark III design -1970's – raises questions
- NRC notified. GE forms Mark I Owners Group – More Testing
- Backfits designed and installed
- Original design requirements extended- to include Station Blackout and Core Damage. - Denton memo
- Hardened Vent added
- After Sept 11, 2001 – more makeup capability added.



Boiling Water Reactor Design At Fukushima Daiichi



NRC Fukushima Rules applicable to Pilgrim

- Equipment, offsite resources for continuous Station Blackout (SBO)-ordered
- Hardened Containment Vent-ordered
Pilgrim already has- may need additional instrumentation
- Fuel Pool level-(additional Instrument)-ordered

Coming- reassessment: earthquake, worst external event, and 19 other items for Pilgrim

Thank You

- “We have nothing to fear, but fear itself.”
President FD Roosevelt
- “Nothing is to be feared, everything is to be understood.”
Marie Curie, discoverer of Radium
- See: Coalition for Energy Solutions website
<http://www.coalitionforenergysolutions.org/>